

AMENDMENTS TO THE CLAIMS

1. (currently amended) A computer ~~with~~ operating under control of an operating system ~~and persistent memory, the computer~~ comprising:

a volatile memory, ~~comprising:~~ including a first, contiguous, non-persistent memory region, the first non-persistent memory region directly accessible by the operating system, and initialized during a boot cycle, and a second contiguous persistent memory region not directly accessible by the operating system and not initialized during a boot cycle; and
a ~~persistent memory region; and~~

an intermediary program in communication with the operating system and the second, persistent memory region,

wherein the intermediary program enables the operating system to address ~~a~~ the second, persistent memory region.

2. (currently amended) The computer of claim 1 wherein ~~a non-persistent~~ the first, non-persistent memory region and ~~a persistent~~ the second, persistent memory region ~~are~~ comprise different physical ~~memories~~ volatile memory elements.

3. (original) The computer of claim 1 wherein the intermediary program is a device driver.

4. (currently amended) The computer of claim 1 additionally comprising:

a basic input/output system (BIOS), ~~which~~ preventings direct access to the second, persistent memory region by the operating system.

5. (currently amended) The computer of claim 1 wherein the second, persistent memory region is allocated to redundant CPU memory locations.

6. (currently amended) The computer of claim 1 additionally comprising:

a non-volatile memory element storing ~~wherein the non-volatile memory contains~~ information concerning the configuration of the second, persistent memory region.

7. (currently amended) The computer of claim 1 additionally comprising:

a non-volatile memory, element storing ~~wherein the non-volatile memory contains~~ information concerning the configuration of the first, non-persistent memory region.

8. (currently amended) The computer of claim 1 additionally comprising:

a ~~file-containing system settings,~~
~~wherein the file-containing system settings contains~~ storing information concerning the configuration of the second, persistent memory region.

9. (currently amended) The computer of claim 1 additionally comprising:

a ~~file-containing system settings,~~
~~wherein the file-containing system settings contains~~ storing information concerning the configuration of the first, non-persistent memory region.

10. (original) The computer of claim 1 wherein the persistent memory region comprises:

a look-aside buffer, comprising:

a set of state bits, and

a buffer region for the storage of data,

wherein the look-aside buffer is used for the atomic storage and update of write requests.

11. (currently amended) A storage medium ~~with an encoded~~ having embodied thereon a program which, when loaded into a computer having an operating system and a volatile memory partitioned into a first, contiguous non-persistent memory region and a second, contiguous, persistent memory region, provides the computer with a persistent, volatile memory, said program comprising ~~the steps of:~~

(a) — computer-readable program means for reading from the second, persistent memory region in response to requests coming from the operating system; and

(b) — computer-readable program means for writing to the second, persistent memory region in response to requests coming from the operating system.

12. (currently amended) The ~~encoded~~ program of claim 11 wherein the second, persistent memory region of the computer comprises a look-aside buffer ~~itself comprising, including~~ a set of state bits and a buffer region for the storage of data, ~~and step (b) further comprises the steps of:~~ the program further comprising:

(b-a) — computer-readable program means for setting the state bits to a first value before writing the contents of a request to the buffer region;

~~(b-b)~~—computer-readable program means for writing the contents of a request to the buffer region;

~~(b-e)~~—computer-readable program means for setting the state bits to a second value after successful completion of the writing of the contents of a request to the buffer region;

~~(b-d)~~—computer-readable program means for copying the contents of the buffer region to the appropriate location in the second, persistent memory region; and

~~(b-e)~~ computer-readable program means for setting the state bits to a third value after successfully copying the contents of the buffer region to the appropriate location in the second, persistent memory region.

13. (currently amended) In a computer system comprising an operating system, an intermediary program, and a volatile memory, a method for providing a persistent region of the volatile memory, the method comprising the steps of:

(a) partitioning the volatile memory into a first, contiguous, non-persistent memory region and a second, contiguous, persistent memory region;

(b) providing an intermediary program in communication with the second, persistent memory region such that the second, persistent memory region is accessible to the operating system solely through the device driver.

14. (currently amended) The method of claim 13 wherein the contents of the second, persistent memory region ~~retain their integrity during~~ are not initialized during a boot cycle.

15. (currently amended) The method of claim 13 wherein the second, persistent memory region comprises a look-aside buffer, ~~which the device driver uses~~ used by the intermediary program for the atomic update and storage of write requests.

16. (currently amended) The method of claim 13 wherein step (a) comprises the steps of:

(a-a) reading a stored address defining the start address of the second, persistent memory region;

(a-b) reading a stored value defining the size of the second, persistent memory region; and

(a-c) creating a second, persistent memory region at the start address equal in size to the stored value defining the size of the second, persistent memory region.

17. (currently amended) The method of claim 16 wherein the program reads the stored addresses and stored values defining the size of the second, persistent memory region from a non-volatile memory element.

18. (currently amended) An operating system memory environment comprising:

a first, contiguous memory mode region of volatile memory accessible to users and to the operating system;

a second, contiguous memory mode region of volatile memory accessible only to the operating system and not to users; and

a third, contiguous memory mode region of volatile memory not accessible by users and not directly accessible by the operating system.

19. (original) The operating system memory environment of claim 18 wherein the operating system is a Microsoft Windows operating system.

20. (currently amended) A computer ~~with~~ operating under control of a memory-mapped operating system, ~~and persistent memory~~ the computer comprising:

a volatile memory, ~~comprising: including a first, contiguous, non-~~
persistent memory region ~~directly accessible~~ that is mapped by the operating system; and

a second, contiguous, persistent memory region, ~~whose locations are not~~
that is not mapped by the operating system.

21. (currently amended) The computer of claim 20 further comprising:

a device driver in communication with the operating system and the
second, persistent memory region of volatile memory,

wherein the operating system addresses the second, persistent memory
region of volatile memory using ~~via~~ the device driver.

22. (currently amended) The computer of claim 21 wherein the second, persistent
memory region of volatile memory comprises a look-aside buffer ~~which~~ used by the
device driver ~~uses for the~~ atomic update and storage of write requests.

23. (currently amended) The computer of claim 20 wherein the locations of the
second, persistent region of volatile memory are mapped by the operating system or a
user application ~~once upon completion of the boot cycle is complete~~.